ABSTRACT

The invention relates to a method for channel estimation. The method comprises digitizing an analog signal representing a sequence of symbols thereby associating one digital word out to the level of said analog signal at each sampling time. The most likely sequence of said symbols is detected. To this end branch metrics are provided. According to one embodiment, a symbol period comprises at least two sampling times. Moreover, the branch metrics are obtained from frequencies of digital words resulting from a digitizing and the symbols of the most likely sequence. According to another embodiment, a symbol period comprises at least one sampling time. Events are counted wherein each event is defined by a channel state and a current digital word. Each channel state is defined by a pattern of symbols relative to a current symbol determined at the time of a current digital word. A model distribution is fitted to event counts and a branch metrics is obtained from the fitted model distribution. Moreover, the invention relates to corresponding symbol detectors for optical receivers.